DOCUMENT RESUME

ED 191 619 RC 012 209

AUTHOR Wisniewski, Robert L.; And Others
TITLE Understanding Respondents' Attitudes Toward Energy Development in the Rural West: An Analysis of the Local Context.
PUB DATE 20 Aug 80
NOTE 26p.; Paper presented at the annual meeting of the Rural Sociological Society (Ithaca, NY, August 20-23, 1980).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adults; *Community Attitudes; *Community Support; Ecological Factors; *Economic Development; *Energy; Industry; Population Growth; *Quality of Life; Rural Development; *Rural Population; Social Change
IDENTIFIERS Boomtowns; *United States (Rocky Mountain States)

ABSTRACT

A review of existing research on community attitudes toward energy development in the rural West reveals an apparent paradox, although substantial social and cultural disruptions have resulted from energy development, local residents' opinions have been highly supportive of energy development. While residents may not receive the anticipated degree of economic benefit from growth, the energy-related growth generally provides a net economic benefit to the community. Limited data on post-development attitudes indicate that while the level of support may decline as the community experiences development, most local residents continue to be supportive. Examination of recent survey data provides a closer analysis of the nature of support for development among residents of eight different western communities. While generally in favor of growth, these communities indicate a clear preference for lower levels of growth and for types of development other than energy-related "heavy industry." It is suggested that rural residents see energy-related growth as a means of stemming or reversing the economic decline which has characterized a large portion of the Rocky Mountain Region for most of this century and that future analysis of community attitudes regarding energy development will be more fruitful when perceived within that historical context.
(Author/CM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED191619

AUG 1980
ERIC/CRESS
RECEIVED

UNDERSTANDING RESPONDENTS' ATTITUDES TOWARD ENERGY DEVELOPMENT IN THE RURAL WEST: AN ANALYSIS OF THE LOCAL CONTEXT

by

Robert L. Wisniewski
Paula Coutz
Rodney Baxter
William R. Freudenburg

Departments of Sociology and
Rural Sociology
Washington State University
Pullman, Washington

This paper was prepared for presentation at the 1980 Annual Meetings of the U.S. Rural Sociological Society, August 20-23, Ithaca, New York.

RC 01 2209

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Robert L. Wisniewski

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

UNDERSTANDING RESPONDENTS' ATTITUDES TOWARD ENERGY DEVELOPMENT IN THE RURAL WEST: AN ANALYSIS OF THE LOCAL CONTEXT

ABSTRACT

A review of existing research on the attitudes of local residents toward energy developments in the rural West reveals an apparent paradox: numerous researchers have reported that substantial social and cultural disruptions have occurred as a result of energy development, yet local residents' opinions have been highly supportive of energy development. A closer examination of available evidence indicates that while residents may not receive the anticipated degree of economic benefit from growth, the energy-related growth generally does provide a net economic benefit to the community. Limited data on postdevelopment attitudes indicate that while the level of support may decline as the community experiences development, most local residents continue to be supportive.

By examining additional survey data which have recently become available, the authors provide a closer analysis of the nature of support for development among residents of eight different western communities and report that the support for continued growth appears to be genuine but carefully qualified. If local residents are forced to choose between massive growth and no growth, they will generally vote in favor of growth; when given the choice, however, respondents indicate a clear preference for lower levels of growth and for types of development other than energy-related "heavy industry".

The authors suggest that residents' attitudes are strongly influenced and shaped by a history of economic and demographic decline characterizing a large portion of the Rocky Mountain region for a major part of the 20th Century, and that responses are most fruitfully seen within that context. Energy-related growth is seen as a means of stemming or reversing the period of decline, but more moderate levels of growth are strongly preferred.

UNDERSTANDING RESPONDENTS' ATTITUDES TOWARD ENERGY DEVELOPMENT IN THE RURAL WEST: AN ANALYSIS OF THE LOCAL CONTEXT

Since the Nixon administration's "Project Independence," U.S. energy policies have placed heavy emphasis on potential for developing fossil fuel reserves in the Rocky Mountain region. Although the exact policies have fluctuated with subsequent administrations, all presidential policies have had clear implications for the communities of the region; a recent report (Garrett and Webb, 1979) lists 325 "energy impacted communities" (to use the common term) in Federal Region VIII alone.[1] The magnitude of the potential for development, coupled with a concern that local opposition could delay the construction or operation of energy facilities, had led to concern and research on the attitudes of local residents toward development. The present paper offers a review and an analysis of that research.

Past Findings

Existing studies have generally found strong levels of local support for development (see Freudenburg, 1976, or Cluett, et al., 1979, for relevant discussions). Nellis (1974), for example, reported that the long-time residents in his sample of Hanna, Wyoming, were "very positive about the new developments." (Nellis, 1974:7). Jobes and Parons (1975:215), reporting on responses from residents of the Decker-Birney (Montana) area, found that 67.1 percent and 65.3 percent, respectively, were in favor of "more power plants" and "new strip mines" in their area. In Campbell County, Wyoming, Blevins, et al., (1974) found 50.3 percent of their respondents agreeing that 'in the long run, I am sure that we will be better off if the strip mines are developed," while only 24.9 percent disagreed (Blevins, et al., 1974:62). Thompson, et al., (1979:209) found

support for "energy development" ranged from 42 to 84 percent. In the Four Corners region, Little and Lovejoy found 83 percent of their respondents in favor of even the controversial Kaiparowits power plant (Little and Lovejoy, 1977:11). Other researchers have encountered analogous findings in other communities; as Murdock and Leistritz suggest, it is generally reasonable to conclude that "residents in predevelopment areas tend to . . . evaluate potential benefits (of development) as outweighing the potential costs" (Murdock and Leistritz, 1979:254). The authors of this paper would agree with these findings; when given a choice of whether or not to have a new energy facility constructed in their communities, residents of most "preimpact" communities in the Rocky Mountain West have generally favored the facilities.

The Local Context

As Cortese and Jones have noted (1976:5-6), an understanding of the local context can be extremely important in gaining a full understanding of the nature of social impacts, and the measurement of local opinions toward growth of a new facility can be an important first step in understanding the local context. As Freudenburg (1978:4) has illustrated, however, most existing surveys have attempted to measure local residents' attitudes toward development before it occurs--a practice "which seems akin to asking someone what he thinks about a blind date he has never met." This is not to say that the results of such opinion polling are likely to be useless; like the information about the blind dates, however, the results of these inquiries will perhaps reveal more about the people whose origins are being measured than about the new experiences purportedly being evaluated. For this reason, the authors would like to suggest that these data be seen explicitly as indicators of the local context and be interpreted accordingly. The context

is perhaps viewed most fruitfully from a more in-depth historical perspective than is normally present in sociological analyses.

Generally, English-speaking settlement of the Rocky Mountain region and the western high plains occurred only after all other sections of the continguous 48 United States had been settled, and partly for that reason, settlement took place at a time when policies were changing. In the early years of western settlement, potential citizens saw an awesomely vast stretch of rugged, undeveloped land; but they saw very little in the way of "civilization" or of human settlement. Forest lands and clear air seemed inexhaustibly plentiful, and economically vial communities were so scare that almost any measure was justified in an attempt to keep the settlements "alive".

The Federal government had wrestled nominal control of the now western states from various European powers and had invoked the notion of "manifest destiny" to take the lands from their original inhabitants as well. U.S. citizens expected the government to simply hold these lands until they could be claimed by homesteaders and other settlers; indeed, a series of "Homestead Acts" were written to give away large sections of land to any settlers who would attempt to cultivate them. The slow settlement patterns of this area indicate "free land" was an important inducement, luring new residents to the region; these were areas with little else to recommend them, Major Stephen Long's "Great American Desert".

Toward the end of the 19th century, the region was firmly under the control of the U.S. government; the Indian wars had been fought and "won", and many settlers of the region reportedly felt that "their time for settlement" was finally due. Yet perhaps in part because the "frontier" was disappearing, the United States Congress was changing the rules of the settlement game just when the western states thought they

might start winning a bit more often--passing the Forest Reserve Act in 1891 and beginning to set aside Federal reserves later that same year. Federal meddling and the "locking up" of forest reserves (and later, of other Federally owned lands) was destined to continue and increase despite intense local and regional opposition. The impact of this "change in ground rules" can be demonstrated quite easily: no state to the east of the Rocky Mountain region has as much as 14 percent of its land under federal ownership. No state in the western third of the contiguous U.S. has as little as twice that percentage (28%) under federal control. Ninety percent of all federally owned lands are in the West, and 9 of the 11 western states have at least one-third of their lands under federal ownership; federal ownership reaches an astounding 86 percent in Nevada.[2]

After the turn of the century, even areas that had been successfully settled were again reminded of just how precarious their hold on settlers and thus their existence as communities remained. No sooner had they been settled than the automobile and other forms of mechanization became widespread. With mechanization, fewer persons were needed to care for a ranch or farm; with the automobile, persons remaining in the area could choose to do their shopping in more distant communities. Businesses and sometimes even whole towns lost the trade they had once drawn from surrounding agricultural regions and were forced to close. In most areas of the West, including the areas slated to be affected by energy development, the history of the 20th century has been a history of demographic decline.

Communities which are likely to be affected by energy development are communities which have survived demographic decline. In general, long-time residents of most potential impact communities in the Rocky Mountain region do not feel they are the least bit helpless in the face of an "onslaught" from "giant energy companies". If anything, the more common frustration

is a helpless fear that the companies (and prosperity) will simply go away, or far worse, will be "chased away" by outside forces (usually "government" or "environmentalists") just as many 19th century residents of the area felt that governmental land policies or the continued presence of Indians were preventing prosperity and growth. Nor are the older residents of the area as likely as their urban counterparts to take "modern conveniences" for granted. In this era of microwave ovens, it is useful to recall that while over 50 percent of all U.S. homes had electricity by 1925, over 50 percent of all farm households were without electric services as late as 1945, although the proportion without electricity had shrunk to a mere 5 percent by 1956 (U.S. Department of Commerce, 1975:II827). In short, when questions of development are submitted to a simple yes/no vote among the area residents who are old enough to remember tougher days, the "yes" votes will generally win by a fairly solid margin.

Recent Survey Results: Qualified Growth

If respondents to various surveys have consistently favored energy development, it is not because they are unaware of the trade-offs involved or because the perceived economic benefits simply do not occur. Rather, respondents emphasize the economic advantages accruing from energy development, and social quality of life characteristics of the exising community "seem to be given less priority in future projections in order to achieve economic goals/community survival" (Barone, et al., 1979:178).

A study conducted by Albrecht (cited in U.S. Bureau of Land Management, 1979:3-49, 3-50) in Wayne County, Utah, examines local attitudes toward the Intermountain power project and indicates that perceived social and environmental impacts of the proposed project were negative but that respondents overwhelmingly (96 percent) felt that the power project would

enhance economic and employment opportunities. Although 42 percent of the respondents felt the quality of the rural way of life would decline (vs. 38 percent that felt it would improve), 76 percent generally favored the project. It is important to note, however, that 50 percent of those respondents who favored the project had some reservations.

This finding, coupled with the studies reviewed below, indicate that support for large energy projects is not unconditional but, instead, qualified.

Thompson, et al., (1979:144) found that some economic benefits do accrue to communities experiencing rapid energy development. Responses indicate, as seen below, that persons in communities experiencing impact have the lowest expectation of economic gain.

[TABLE 1 ABOUT HERE]

This evidence may support studies indicating that boom community residents do not receive the level of economic benefits that are often anticipated before development occurs (Ives and Schulze, 1976; Little and Lovejoy, 1979), but it is similarly important to note that a majority of respondents in impact counties (after experiencing at least some degree of development) still express a positive belief in the economic opportunities associated with development.

Thompson, et al., (1979) also found that respondents in both impact and control counties agreed that undesirable social change would accompany development. Here, too, examination of mean scores reveals significant and substantial differences between impact and control counties. People who have experienced development clearly perceive social change more negatively than those who have not, as can be seen in Table 2.

[TABLE 2 ABOUT HERE]

Available evidence generally does not indicate that westerners support development "at the expense of" environmental preservation (Freudenburg, et al., 1977; Murdock and Leistritz, 1979; Thompson, et al., 1979). Thompson and his colleagues have reported (1979:140) that respondents in impact communities indicate a greater concern for environmental protection then respondents in control communities, although both groups show a relatively strong desire for environmental protection, as shown in Table 3.[3]

[TABLE 3 ABOUT HERE]

The question to be addressed is: why do residents of communities still favor energy development even at a lower level of enthusiasm, after having experienced the negative features associated with it?

In general, the authors agree with the conclusion of Murdock and Leistritz (1979:254); respondents (at least implicitly) feel that the definite economic benefits to be gained from development more than offset the negative social and environmental changes which they anticipate. The authors further suggest that this belief should be seen in the historical context of general outmigration and economic decline of small, rural communities in western states. The respondents' choice may appear to be between the expected trend of economic decline and the economic stimulation of energy development, despite the accompanying negative social and environmental features. In short, many communities view energy development as a positive influence in their struggle for economic survival.

Consistent majority support for energy development is clearly qualified, however. Thompson, et al., (1979:144) indicate that additional variables, such as amount and type of development, reveal that residents of all counties

definitely prefer "moderate" growth to rapid growth and that any other type of development is preferred to growth created by "heavy industry," such as energy development, as shown in Table 4.

[TABLE 4 ABOUT HERE]

This finding is supported by Albrecht (1978), who reported that over four-fifths of Wayne County respondents preferred moderate economic and population growth. Similarly, Freudenburg, et al., (1977) found that support for development in four western Colorado communities was strongly qualified. Of the 72 percent in favor of energy development, approximately half, or 35 percent of the total, stipulated conditions for their support. The condition most frequently mentioned was that the development be planned or slow.

If this finding holds for other rural, western communities, then it may be that the majority support attributed to energy development in existing studies is largely due to conditional support. Such support may be undermined by boomtown growth that is either unplanned or too rapid. The following comparison was made by one respondent in the Colorado study: "I'm for it, if they do it right. Not like in Craig" [a boomtown]. When compared to respondents from the other three communities in Freudenburg's study, respondents in Meeker, thought to be scheduled for massive oil shale development, were much more likely (48% vs. 31%) to make their support conditional.

Respondents' reasons for their attitudes toward development offer further evidence of an awareness of the trade-offs that development seems to bring. Recent analysis of the Colorado data reveal that about half of those favoring development listed economic benefits as their primary reason, while two-thirds of those against development offered social-cost reasons

(such as too many people or loss of small-town character).[5] It is interesting to note that 22 percent of those respondents opposing development listed environmental reasons; no mention of environmental benefits was made by those in favor of growth.

In short, a forced choice format is not entirely appropriate for assessing the attitudes of residents of rapid growth communities. Both the quantitative data reported above and the comments of the residents (reported below) indicate that residents are painfully aware of the "mixed blessings" of energy development--and that they are equally aware of the problems of not attracting economic growth. Here are some reasonably representative comments from respondents in Freudenburg's study of four impact communities in Colorado; all comments were offered in response to inquiries about the desirability of coal-related development.

> "For it. Hate to see the town dying."
>
> "[most people here are opposed] They'd like to see the prosperity but they don't care to see the development end the real beauty of this place; that's [what] really makes it worth living here in the first place."
>
> "Mixed feelings. It'd be good to have more money coming in--but I don't want to see more people moving in."
>
> "We have a nice community. It could grow a little--enough so there'd be a theater, that'd be nice. But I just don't feel we want all that much."
>
> "I think they'd like to see the rewards, the money, you know, but they don't want the changes."

One important reason that residents of small, rural western communities are likely to favor energy development is that they hope to slow or stop traditional outmigration of rural youth. As an illustration, Thompson, et al., (1979:208) found that strong majorities of local residents--from 73 to 94 percent of the respondents in sample communities--believed that outmigration of rural youth is linked to economic decline. (See data in

Table 5).

[TABLE 5 ABOUT HERE]

Similarly, Freudenburg (1979:148) found that respondents in the rapid-growth community, Craig, were four times more likely than those in the other three communities to believe there were enough job opportunities for the community's youth. Thus, it is not surprising that the economic opportunities thought to be associated with energy development receive a high priority from rural western communities. Again, a respondent from the Colorado study summarizes this attitude:

> "Well, I think that [i.e., coal development] is what we need. You know, I think it's a shame that they don't have anything here for the young people. They have to go away for jobs. That doesn't help the community at all."

Research Needs

Unfortunately, too little analysis is available to conclude that only the oldtimers, who presumably have endured the pattern of decline and outmigration, form the basis of support for development. Recent analysis of Freudenburg's Colorado data provides a mixed picture.

First, qualified support is widely based within the four communities; no significant differences were found by either economic sector or length of residence of head of household. Oldtimers were only slightly (39% vs. 37%) more likely to be qualified in their support than newcomers.[4] Secondly, in contrast to the views of older residents, the younger people of all four towns listed themselves as more likely to move if "increased development" were to occur. Not surprisingly, this trend was the strongest in Craig, the boomtown.

Additional research or further analysis of existing data is needed to

test whether this widely-based pattern of support for development is representative. If so, research efforts could focus on why newcomers share a similar value: for example, most newcomers may be from within the region and thus should not be expected to differ.

Summary and Conclusions

The authors have strongly suggested that the majority support for energy development in rural western communities reported in previous surveys should be viewed from a perspective of the "local context". Such a perspective draws upon the broader historical context of economic decline and outmigration which has prevailed in most rural western communities.

An understanding of the local context should enable further researchers to avoid the "forced choice" questions of energy development. In addition, the authors have demonstrated that when respondents are allowed either "open-ended" responses or are given additional variables from which to choose, the magnitude and kind of qualified support which emerges is significant.

Greater specification of the dimensions involved in the kind of development desired by residents of about-to-be impacted communities and greater attention to the kinds of qualifications residents attach to energy development could provide a fuller and more accurate assessment of impacts. It is the residents of impacted communities that must live with consequences of energy development; to state majority preference without understanding the local context in which energy development occurs is to misrepresent the real meanings residents attach to their preferences.

FOOTNOTES

1. The states are: North and South Dakota, Montana, Wyoming, Utah, and Colorado.

2. Such are the roots of the so-called "sagebrush rebellion."

3. The difference, however, was only statistically significant in 1977.

4. "Oldtimers" resided 3 or more years in the community, "newcomers" were residents for less than 3 years.

5. Respondents' replied to an open-ended question about attitudes toward development were sorted into 32 categories and later collapsed into "social", "environmental", "economic", and "other" categories.

TABLE 1. Associated responses of Index of Ecnomic Opportunity, by amount of impact.

Type of County	Time	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	$\bar{M}$	Type of Development
Impact*	1976	8	49	27	14	2	2.54	Electric gener-
(Platte and McLean)	1977	17	45	28	9	1	2.34	ating plants
Control	1976	16	55	19	9	1	2.24	None
(Kimball and Wheatland)	1977	17	52	25	5	0	2.19	

Results of the Scheffe Test for difference of means for the above index indicate that the difference is statistically significant at the .01 level for 1976 but not significant for 1977 (.05 level).

Variables included in Index: Economic Opportunity

(1) There will be more tax money available for better schools.
(2) There will be more jobs available so that young people will be able to remain here rather than having to move away.
(3) We will have better community services such as improved health care.
(4) Incomes for local people will improve.

Thompson, et al., (1979) report that these questions were indexed to provide a summary measure to estimate differences in attitudes between impact and control counties.

*Percentage may not total 100, due to rounding.

Source: Thompson, et al., (1979:136).

TABLE 2. Associated responses of Index of Social Change, by amount of development.

Amount of Development	Time	Index: Social Change (Percentage)* Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	M	Type of Development
Impact (Platte and McLean)	1976	22	42	18	16	2	2.34	Electric generating plants
	1977	33	37	15	12	3	2.15	
Control (Kimball and Wheatland)	1976	11	35	23	26	5	2.79	None
	1977	13	32	21	29	5	2.80	

Results of the Scheffe Test for difference of means for the above index is statistically significant at the .001 level for both 1976 and 1977.

Variables included in Index: Social Change

(1) People will be less united and friendly because of the influx of many newcomers.
(2) There will be an increase in crime and illegal drugs.

Thompson, et al., (1979) report that these questions were indexed to provide a summary measure to estimate differences in attitudes between impact and control counties.

*Percentages may not total 100, due to rounding.

Source: Thompson, et al., (1979:139).

TABLE 3. Response frequencies for Index of Environmental Concern, by Amount of Development.

Amount of Development	Time	Index: Environmental Concern (Percentage)* Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	$\bar{M}$	Type of Development
Impact	1976	2	12	17	39	30	3.82	Electric generating power plants
(Platte and McLean)	1977	3	9	20	37	31	3.83	
Control	1976	2	14	21	40	23	3.68	None
(Kimball and Wheatland)	1977	3	16	21	42	18	3.57	

Results of the Scheffe Test for difference of means for the above index were statistically significant at the .01 level in 1977 but not significant (.05 level) in 1976.

Variables included in Index: Environmental Concern

(1) Industries should be forced to shut down if they refuse to meet governmental pollution standards.
(2) Even if industry is causing substantial pollution, it should not be forced to stop operations if it would put people out of work.

Thompson, et al., (1979) report that these questions were indexed to provide a summary measure to estimate differences in attitudes between impact and control counties.

The reader is cautioned that the first variable was recoded for directionality to match the second variable (strongly disagree indicates environmental concern while strongly agree indicates lack of concern).

*Percentages may not total 100, due to rounding.

Source: Thompson, et al., (1979:142).

TABLE 4. Amount and type of development preferred by residents of all counties in order of highest preference.

1976	1977
1) Agricultural Development	1) Agricultural Development
2) Light Industry	2) Light Industry
3) Business Areas for Retail Trade	3) Business Areas for Retail Trade
4) Recreational Development	4) Recreational Development
5) Heavy Industry	5) Heavy Industry

Note: McLean County ranked business (2) and light industry (3).

Respondents were also asked, "What is your feeling about future economic development (new industry) in (name) County?" Responses to the question were as follows:

	1977
No more growth	15%
Moderate growth	62%
As much growth as can be attracted	23%

Source: Thompson, et al. (1979:146).

TABLE 5. There will be more jobs available so that young people will be able to remain here rather than having to move away.

County	Time	$\bar{M}$	SA	A	N	D	SD
Wheatland	1976	2.01	31%	49%	10%	8%	2%
	1977	1.81	40	39	8	6	1
Kimball	1976	1.83	39	45	9	6	1
	1977	1.78	43	41	11	4	1
Platte	1976	2.29	16	57	12	12	3
	1977	2.19	29	44	13	10	5
McLean	1976	2.27	19	54	12	11	4
	1977	1.86	41	42	11	5	2

Source: Thompson, et al. (1979:208).

REFERENCES

Barone, Robert N., Gano S. Evans, William S. Hallagan, and James L. Walker

1979 Socioeconomic Analysis of the White Pine Power Project. Reno: University of Nevada, Bureau of Business and Economic Research.

Blevins, Audie L., James G. Thompson, and Carl Ellis

1974 Social Impact Analysis of Campbell County, Wyoming. Laramie: Wyoming Environmental Institute.

Cluett, Christopher, Marjorie Green, and Linda Radford

1979 Individual and Community Response to Energy Facility Siting: A Review of the Literature. Seattle: Battelle Human Affairs Research Centers.

Cortese, Charles F., and Bernie Jones

1976 "Boom Towns: A Social Impact Model with Propositions and Bibliography." Prepared for the Socio-Political Risk/Impact Panel of the Committee on Nuclear and Alternative Energy Systems, National Research Council, National Academy of Sciences.

Freudenburg, William R.

1976 "The Social Impact of Energy Boom Development on Rural Communities: A Review of Literatures and Some Predictions." Prepared for the 71st Annual Meeting of the American Sociological Association, Session 77, the Section on Environmental Sociology. New York Hilton, August 31.

1978 "Toward Ending the Inattention: A Report on the Social Consequences of Energy Boomtown Developments." Prepared for the 144th National Meeting of the American Association for the Advancement of Energy Development. Washington, D.C.: Sheraton-Park Plaza, February 13.

Freudenburg, William R.

1979 People in the Impact Zone: The Human and Social Consequences of Energy Boomtown Growth in Four Western Colorado Communities. New Haven, CT: Yale University, Department of Sociology. (Unpublished Ph.D. Dissertation).

Freudenburg, William R.,Linda Bacigalupi, Arla Clay, Cheryl Landoli, and Kathy N. Deeds

1977 "Subjective Responses to an Energy Boomtown Situation: A Preliminary Report on Research in Progress in Four Western Colorado Towns." Prepared for the 72nd Annual Meeting of the American Sociological Association, Session 114: New Developments in Social Impact Assessment Models. Chicago Hilton, September 7.

Garrett, Pauline and Candis J. Webb

1979 Regional Profile: Energy Impacted Communities, Region VIII. Denver: U.S. Department of Energy.

Ives, Berry, and William Schulze

1976 "Boomtown Impacts of Energy Development in the Lake Powell Region." Lake Powell Research Project Bulletin, No. 26 (Draft).

Jobes, Patrick, and Milton G. Parsons

1975 Satisfaction, Coal Development, and Land Use Planning: A Report of Attitudes Held by Residents of the Decker-Birney-Ashland Study Area. Helena, MT: Montana Energy Advisory Council.

Little, Ronald L., and Stephen B. Lovejoy

1977 Employment Benefits from Rural Industrialization. Los Angeles: Lake Powell Research Project, Bulletin 56.

Little, Ronald L., and Stephen B. Lovejoy

1979 "Energy Development and Local Employment." The Social Sciences Journal 16:27-49 (April).

Murdock, Steve H., and F. Larry Leistritz

1979 Energy Development in the Western United States: Impact on Rural Areas. New York: Praeger.

Nellis, Lee

1974 "What does energy development mean for Wyoming?" Human Organization 33:229-238.

Thompson, James G., Audie L. Blevins, Jr., and Gary L. Watts

1979 Socieconomic Longitudinal Monitoring Project: Final Report: Volume I--Summary. Washington: Old West Regional Commission.

U.S. Bureau of Land Management

1979 Intermountain Power Project: Draft Environmental Impact Statement. Washington, D.C.: U.S. Bureau of Land Management.

U.S. Department of Commerce

1975 Historical Statistics of the United States, Colonial Times to 1970. Washington, D.C.: U.S. Government Printing Office.